

4.4 COMMERCIAL AND RECREATIONAL FISHING

The following discusses the commercially-important fish and invertebrate resources, the commercial fishing gear that is used, and the recreational fishing activities that occur within the region and Project site. This section also identifies significance criteria, assesses potential Project-related impacts on commercial and recreational fishing activities, and discusses Project-incorporated mitigation measures that are designed to reduce or eliminate adverse impacts.

4.4.1 Environmental Setting

Commercial Fishing

Commercial catch data are reported by the California Department of Fish and Game (CDFG) from a series of 10 latitude by 10 longitude, each covering an area of approximately 100 square nautical miles (nm^2) (343 square kilometers [km^2]), called Fish Blocks within the marine waters off California. The Project region is defined as the ocean waters and seafloor within Estero Bay from the shoreline to approximately 60 miles (mi) (96 kilometers [km]) offshore. That region is encompassed by the six fish blocks that are within the water depths of the region assessed in this EIR and through which the cable passes as shown in Figure 4.4-1.

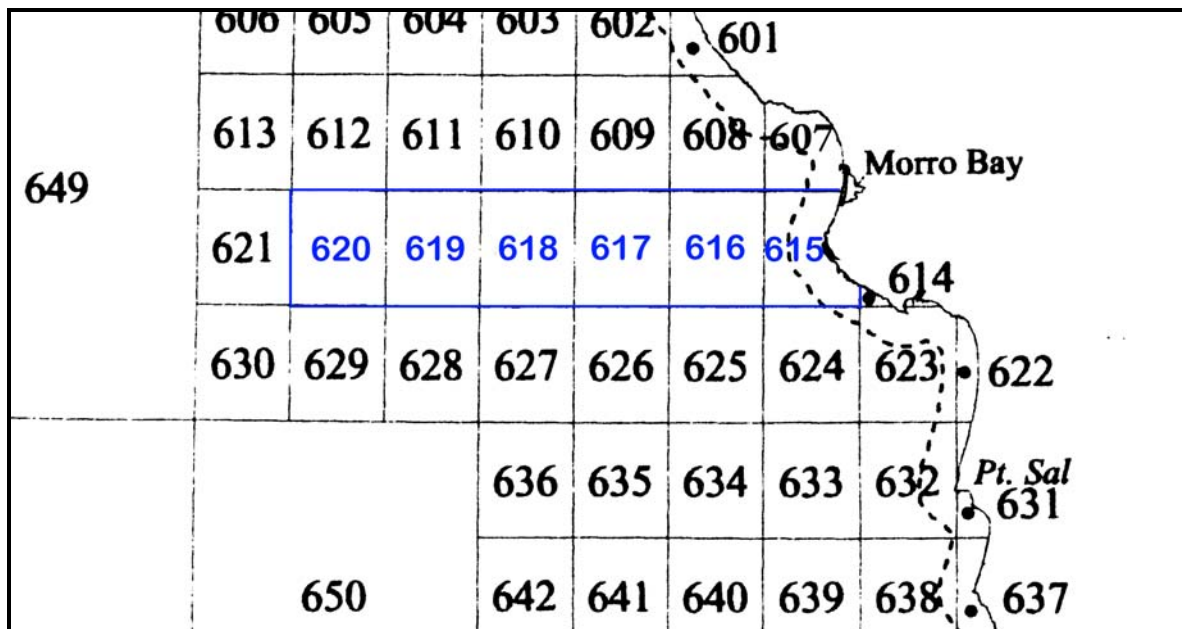


Figure 4.4-1. CDFG Fish Blocks Encompassing Cable Corridor

Data sources used in the following discussions include technical reports and personal communications with local fishers, and commercial catch data that were obtained from CDFG.

The primary ports that provide facilities for commercial vessels within the area are Morro Bay and Port San Luis/Avila. Approximately 250 commercial fishing vessels regularly use these harbors, with less than 15 percent being trawlers (Morro Group 1999). As is discussed in Section 5.1.1, Analysis and Conditions, the number of trawlers within the Morro Bay/Avila harbors has decreased over the past 10 years, and currently, commercial fishing in the vicinity of Morro Bay targets a variety of species ranging from invertebrates such as crab and shrimp to rockfish, pelagic (wetfish) species, and sharks. Gear types used to catch these resources include trawl, gill net, trap, diving, round-haul nets, and hook-and-line. Table 4.4-1 provides a summary of the commercial gear types, target species, and areas fished within the Project region.

Table 4.4-1. Commercial Fisheries and Gear Types Used in Project Area

Gear	Target Species	Notes
Hook and line	Rockfish, Salmon, Albacore, Sablefish, Lingcod	Trolling (salmon and albacore) in late summer and fall; long line fishing all year
Set gill net/Trammel net	Rockfish (on Santa Lucia Bank), Sharks, Halibut, White Sea Bass	Nets anchored to the bottom and checked regularly; most set in less than 330 feet (ft) (100 meters [m]) for halibut and 1,650 ft (500 m) for other species
Drift gill net	Thresher Shark, Swordfish, Sea Bass, Barracuda	Fished at night 3 to 80 miles (5 to 130 km) offshore
Purse seine/Lampara net	Mackerel, Anchovy, Market Squid, Herring, Sardine	For pelagic, schooling fish; lampara nets used in depths less than 150 ft (45 m)
Trawl	Rockfish, Halibut, Sole, Sablefish, Shrimp, Prawns	Fished all year beyond the three- mile State-waters limit, except pink shrimp (1 April-31 October); most sole fished at depths of 1,200 to 1,800 ft (365 to 550 m) although some to 3,120 ft (950 m), halibut at less than 270 ft (82 m), rockfish at 360 to 900 ft (110 to 275 m), shrimp/prawns at 330 to 1,320 ft (100 to 400 m) over green mud
Hookah/Diving	Urchins, Cucumbers	Divers work from small boats in water usually less than 120 ft (37 m)
Trap	Crab, Prawns, Sablefish, Rockfish	Traps set on the bottom (at depths of 60 to 360 ft [18 to 110 m] for crabs and prawns, <1,650 ft [500 m] for sablefish, and <660 ft [200 m] for rockfish) with marker buoys

Source: SAIC 2000

Trawling is of special interest because it is the fishery with the highest potential for conflict with submarine cables. Although reduced from previous years, following the buy-out of most of the local trawlers in 2005 (Tognazzini, personal communication 2008), trawling occurs beyond the three-nautical mile State-waters limit with most occurring inshore of a 3,600 ft (1,100 m) water depth; some trawling in water depths of up to 4,800 ft (1,460 m) has been reported (Morro Group 1999). Most trawling is in sedimentary habitat, although low-relief rocky areas may also be trawled with nets fitted with roller gear. For finfish, the trawling season is open all year, as weather permits.

Hook-and-line commercial fishing occurs throughout the year primarily over rocky features, although peak activity is from January through July for horizontal long-lining and March through August for vertical long-lining (NRC 1999). Long-line fishing for halibut occurs primarily over sandy bottom, while trolling for salmon occurs near the surface in waters throughout the area and can extend offshore to locations where water depths exceed 1,000 ft (300 m). Rod and reel or jig fishing occurs primarily in nearshore rocky areas (NRC 1999).

CDFG maintains the Fish Block System for reporting commercial and recreational catch within the marine waters offshore California. The numbered Fish Blocks are areas within which fish catch is reported by commercial buyers and recreational vessel operators. The buyer completes the "trip ticket" information at the time the catch is purchased from the fisher and includes pounds by species, gear type, location (fish block), and vessel name. The proposed Project corridor to the 6,000-foot (1,830 m) isobath lies within Fish Blocks 615 to 620 (Figure 4.4-1).

The following discusses the commercial fishing data available for the six, Project area Fish Blocks. Table 4.4-2 lists the most abundant species, defined herein as most pounds of the commercial catch by Fish Block for the most recent five years available (2003 through 2007) (Robertson, personal communication 2008).

Table 4.4-2. Three Most Abundant Commercial Taxa from Each of the Regional Fish Blocks (2003 through 2007)

Fish Block	Species
615	Market squid, Cabezon, Hagfish
616	Sablefish, Salmon (unidentified), Thresher shark
617	Sablefish, Dover sole, Ridgeback prawn
618	Sablefish, Sea urchin, Swordfish
619	Sablefish, Sea urchin, Blackgill rockfish
620	Sablefish, Hagfish, Sea urchin

CDFG-provided data suggest that hook and line, trap, net, and trawls are the four most commonly used commercial gear types within Fish Blocks 615 to 620. Sablefish (*Anoplopoma fimbria*) and market squid (*Loligo opalescens*) contributed the most pounds of commercial catch within the most recent five years, with sablefish accounting for approximately 32 percent (240,997 pounds [lbs] of 755,468 lbs [109,316 kg of 342,680 kg]) of the total reported commercial catch for those blocks. Market squid accounted for 20 percent (148,036 lbs [67,149 kg]) of the total commercial catch. Purse seine and drum seine are the primary gear-types used to catch market squid, while fish traps, bottom trawl and hook and line are most commonly used for sablefish (Table 4.4-1). Summer and fall commercial trapping of “black cod” (sablefish) is relatively common offshore Morro Bay in water depths up to 1,200 ft (366 m) (Tognazzini, personal communication 2008).

Fish block data suggest that rock crab (*Cancer sp.*) and Dungeness crab (*C. magister*) contributed the most pounds of the invertebrate commercial catches for these years. Rock crab accounted for approximately four percent (27,505 lbs [12,476 kg]) and Dungeness crab accounted for two percent (16,462 lbs [7,467 kg]) of the total commercial catch. Traps are used to catch rock and Dungeness crabs throughout the year, while bottom trawls are used for pink shrimp, and open seasons vary from year to year.

The results of a Project-specific Remotely Operated Vehicle (ROV) survey within the proposed cable route corridor between the 56- and 512-foot (17 and 156 m) isobaths indicate that several commercially important species were observed. Those species included Dover sole (*Microstomus pacificus*), rock crab (*Cancer sp.*), cabezon (*Scorpaenichthys marmoratus*), English sole (*Pleuronectes vetulus*), northern anchovy (*Engraulis mordax*), rockfish (*Sebastes sp.*), California halibut (*Paralichthys californicus*), and lingcod (*Ophiodon elongatus*) (AMS 2008).

In 2002, the Agreement Between Cable Companies and Fishermen [Agreement] was signed by commercial fishing interests and cable operators for the central California coast. That Agreement, to which AT&T is a signatory, specifies limitations and liabilities for both industries and establishes methods of reporting incidents and compensation for lost revenue and/or equipment. In addition, the Agreement established operational guidelines for both parties and identified methods by which costs associated with gear losses attributable to existing cables could be recovered by commercial fishers.

1 There have been no trawler/fiber optic cable “incidents” since 1995 and the existing
2 Agreement could be amended to include the proposed Project (Kubiak, personal
3 communication 2008). A description of the proposed Project was presented to the
4 Central California Joint Cable/Fisheries Liaison Committee (CCJC/F) Board in October
5 2007 by AT&T (CCJC/F 2008).

6 **Recreational Fishing**

7 Recreational fishing within three-nautical miles (5.6 km) of the region is predominantly
8 by hook-and-line (SAIC 2000). Rocky headland areas in the Point Buchon area are
9 fished for rockfish, lingcod, and cabezon. Other target species in this area include
10 barracuda, bonito, and white sea bass. Nearshore areas from Cayucos to just north of
11 Cambria are fished for lingcod, rockfish, cabezon, petrale sole, starry flounder, and
12 California halibut. Just offshore Morro Bay, at depths of about 300 ft (92 m) is an area
13 that recreational fishers target for rockfish. Trolling for salmon occurs parallel to the
14 shore out to depths just over 300 ft (92 m) from near Point Sal to Cayucos (NRC 1999).
15 Fishers on charter boats also troll for albacore farther offshore.

16 In 2002, at least 36 charter businesses served sport fishermen and tourists in Morro
17 Bay, but by 2003, that number had dropped to 27 (NOAA 2007). Target species within
18 the ocean waters offshore Morro Bay include albacore tuna, rockfish, salmon, and other
19 species (NOAA 2007). Nearshore ocean areas off Morro Bay are best for salmon
20 trolling, while deepwater rockfish are sought in the rocky seafloor areas in water depths
21 of about 300 ft (92 m) off Morro Bay (Squire and Smith 1977). In 2000, rockfish and
22 albacore tuna were the two most abundant recreational fish species landed in the Avila
23 Beach/Morro Bay port grouping (NOAA 2007).

24 **4.4.2 Regulatory Setting**

25 The Pacific Fisheries Management Council and CDFG regulate the catch and licensing
26 of commercial fishing vessels, and recommend and enforce closures for commercial
27 fishing within the area. Catch limits (maximum pounds allowed per species) can affect
28 the number of commercial vessels utilizing an area or prohibit catch of one or more
29 species after the specified pound limit has been reached. Regulations governing the
30 gear type(s) allowed within a specific area also affect commercial fisheries. One
31 example of gear limitations is the prohibition of trawling inshore of the three-mile limit.
32 The exception is for halibut within the designated California Inshore Halibut Trawl
33 Grounds that extends from Pt. Dume to Pt. Arguello, south of the Project area.

Several of the commercial fisheries within the Project area are subject to closure periods (seasons) that vary from year to year. Examples of resources that have seasonal closures are salmon, ridgeback shrimp, and spot prawns. The designation of marine protected areas (MPA), i.e., reserves or conservation areas, can also include regulations that limit or prohibit commercial fishing within those areas. No MPA designations are within the Project area.

Although not directly related to commercial fisheries, amendments to the 1996 Magnuson-Stevens Fishery Conservation and Management Act require “the identification of Essential Fish Habitat for federally-managed species and the implementation of measures to conserve and enhance this habitat”. Any project requiring federal authorization, such as a United States (U.S.) Army Corps permit, is required to complete and submit an Essential Fish Habitat Assessment (EFHA) with the application and either show that no significant impacts to the essential habitat of managed species are expected or identify mitigations to reduce those impacts. The EFHA for this Project is provided in Appendix F.

4.4.3 Significance Criteria

A significant impact to the commercial fishing activities within the Project area or site is one that will:

- Result in the long-term (six months or more) loss of >10 percent of the area fished for a commercial species;
- Alter the seafloor in such a manner as to reduce the availability of that area to commercial trawling;
- Substantially increase the risk of collisions between Project vessels and commercial fishing boats;
- Conflict with provisions specified in the existing Agreement between fiber optic cable operators and commercial fishing interests;
- Result in a significant impact to the essential habitat for a managed species as listed in the Essential Fish Habitat legislation; or
- Result in precluding 10 percent or more of a type of fishing activity all or most of a fishing season.

4.4.4 Impact Analysis and Mitigation

While historically, commercial trawling was a common gear-type used within the area offshore Morro Bay (SAIC 2000), as discussed above, recent regulatory changes and closing of areas have reduced those activities for local fishers. Data presented above suggest that surface-oriented fishing for squid and commercial trapping for crabs and sablefish contribute the most pounds from the regional fish blocks. Impacts to all commercial fishing activities is most likely to result from the preclusion of areas around Project vessels and during seafloor activities including the grapnel clearing survey, conduit preparation, and cable laying and burial. While the duration of these activities will vary, the preclusion of some areas from commercial and recreational fishing will occur over the one week grapnel period and over the estimated 15 week period when in-water activities are anticipated (see Section 2.3.2, Physical Description of Proposed Project).

As a signatory to the 2002 Agreement, AT&T is obligated to comply with the applicable provisions in that document during the proposed activities. Based on that compliance, no significant impacts to the commercial or recreational fishing industry or resources are expected. Below is a discussion of the less than significant impacts that could occur.

Construction Impacts Less Than Significant

The grapnel survey, anticipated to be completed one to two weeks prior to the arrival of the cable lay vessel, will be conducted within sedimentary seafloor areas along the proposed “center line” of the lay corridor from the 6,000-foot (1,830 m) isobath eastward to as close to the conduit as possible. The seafloor disturbance created by that survey (trench of less than 2 ft [0.6 m] deep and 2 ft [0.6 m] wide) is not expected to be detrimental to future commercial fishing activities; however, the presence of the vessel traversing the approximately 45 mile (72 km) long corridor could have short-term, but less than significant, impacts to commercial fishing operations due to preclusion of the area.

It is anticipated that a 0.5 mile- (0.8 km-) wide area, 0.25 miles (0.4 km) either side of the vessel, will be avoided by commercial fishers during the grapnel survey. That total area (22.5 mi² [58.3 km²]) is approximately four percent of the total area within the six regional fish blocks. With the submission of a Notice to Mariners and by complying with fishing-related requirements in the existing Agreement between the cable operators and fishing industry, these effects are expected to be less than significant (Class III).

1 Conduit preparation and cable pulling operations will occur within the nearshore area
2 (Fish Block 615) where purse seining for squid and commercial trapping are most
3 common. The preclusion of an area estimated to be 1 mile (1.6 km) in diameter around
4 each of the diver support vessel and the dynamically-positioned cable lay vessel during
5 the four week period required will result in the temporary loss of an estimated 1.6 mi²
6 (4.1 km²) area in water depths between 30 and 60 ft (9 and 18 m) offshore of the
7 conduit. This area represents approximately 36 percent of the area within these water
8 depths in Fish Block 615. While this is a substantial area, the impact is expected to be
9 less than significant due to: (1) The short period of time that the area will be affected,
10 (2) The submission of a Notice to Mariners, (3) Compliance with fishing-related
11 requirements in the existing Agreement between the cable operators and fishing
12 industry, and (4) The availability of similar seafloor habitat in these water depths
13 immediately north and south of the Project site (Class III).

14 The cable lay vessel will traverse the area from west to east (from deep water to
15 inshore) laying the cable along the prescribed route and then depositing the cable that
16 is to be inserted into the conduit onto the seafloor seaward of the conduit. It is assumed
17 that mobile commercial fishing operations such as trawling and purse seining will avoid
18 the vessel by at least 1 mile (1.6 km) while it is transiting the region. That 2 mile-wide
19 and 45 mile-long (3 by 72 km) avoidance corridor mentioned above represents 16
20 percent of the total area within the regional fish blocks. The preclusion of this area will,
21 however, not be throughout the four week period required for cable lay operations.
22 Submission of a Notice to Mariners and compliance with fishing-related requirements in
23 the existing Agreement between the cable operators and fishing industry, coupled with
24 the relatively short period of affect, and the availability of similar seafloor habitat
25 immediately north and south of the regional fish blocks, results in the impacts from this
26 operation to be less than significant (Class III).

27 Burial of the cable within the sedimentary seafloor areas to the 6,000-foot (1,830 m)
28 water depth will be accomplished by divers, ROV, and tow sled. Those activities are
29 expected to take up to six weeks to complete. The nearshore burial will require a vessel
30 that will be anchored offshore of the conduit where the cable will be buried by divers (to
31 the 100-foot [32 m] isobath). The burial of the offshore portions of the cable will not
32 require vessel anchoring. A preclusion area for the diver operations is expected to be
33 similar to that for the conduit preparation (1.6 mi² [4.1 km²]) and does not result in a
34 significant impact to commercial fishing operations (Class III).

1 Fishers are expected to avoid the ROV/tow sled vessel by approximately 0.5 mi (0.8
2 km) while it transits the offshore area. The nearshore preclusion area represents
3 approximately 36 percent of the area within these water depths in Fish Block 615.
4 While this is a substantial area, the short period of time that the area will be affected,
5 submission of a Notice to Mariners and compliance with fishing-related requirements in
6 the existing agreement between the cable operators and fishing industry, coupled with
7 the availability of similar seafloor habitat in these water depths immediately north and
8 south of the Project site result in this impact being considered to be less than significant
9 (Class III). The actual offshore preclusion area will likewise be for a relatively short
10 period and will “move” along the cable corridor thus allowing fishing to occur in most of
11 the fish block area.

12 The placement of the cable across the relatively small area of rocky habitat is not
13 expected to significantly affect the commercial or recreational fish resources associated
14 with that habitat. Should the cable placement result in substantial alteration of the rocky
15 habitat (as assessed during the post-installation ROV survey, see Mitigation Measure
16 BIO-3), required compensation by AT&T in the form of monetary contribution to artificial
17 reef development would mitigate those impacts.

18 Supply and crew boats used to support the proposed Project are expected to ingress
19 and egress Morro Bay via established traffic lanes and the one to two vessels expected
20 to be required for those services are not anticipated to compete for commercial or
21 recreational fishing vessel berths within Morro Bay or Avila. The presence of the one to
22 two vessels within the offshore Project area for the anticipated scheduled period is not
23 expected to substantially increase the chances of vessel accidents. The USCG-
24 required Notice to Mariners will be published in advance of in-water operations and will
25 provide information on the proposed activities and vessel contact data.

26 **Operational Impacts Less than Significant**

27 The Central California Joint Cable/Fisheries Liaison Committee was established to
28 develop and facilitate the operation of an agreement between the two interests and to
29 provide commercial fishers and cable operators a forum through which information
30 could be disseminated and claims could be processed. In addition to the 2002
31 Agreement, other documents, including “Procedures to Follow While Operating Near
32 Morro Bay or San Luis Obispo Cables,” (<http://www.slofiberfish.org/files/procedures.pdf>)
33 have been developed. These documents and continuing data exchange have been

successfully used to reduce cable/fishing interactions within the area (Kubiak, personal communication 2008).

As proposed, all but approximately 1.0 mile (1.6 km), of the cable seaward of the three-mile limit will be buried (AMS 2008, NEC 2008). Substrate that precludes burial includes a 0.5 mile (0.8 km) area between the 2,800- and 2,940-foot [854 and 897 m]) isobaths and a 0.30 mile (0.5 km) of solid rock substrate (0.06 mile [0.1 km] of high relief and 0.2 mile [0.30 km] of low relief) located in approximately 230 ft (70 m) of water. Trawling is not allowed shoreward of the three-mile limit. As AT&T is a signatory to the aforementioned Agreement and has agreed to comply with the applicable provisions of that agreement, operations of the proposed Project are not expected to result in significant impacts to the fishing industry.

In summary, as proposed and in accordance with the existing commercial fishing interests and cable operators' Agreement, no significant impacts to the commercial or recreational fishing resources or activities are expected from the proposed actions (Class III).

Mitigation Measures

Because the impacts would be less than significant (Class III), no mitigation measures are required.

Rationale for Mitigation

No mitigation required.

Table 4.4-3. Summary of Commercial and Recreational Fishing Impacts and Mitigation Measures

Impact	Mitigation Measures
Impacts less than significant (Class III)	No proposed mitigation measures

4.4.5 Impacts of Alternatives

The CEQA Guidelines emphasize that a selection of reasonable alternatives and an adequate assessment of these alternatives be presented to allow for a comparative analysis for consideration by decision-makers. Two alternatives are discussed for this EIR: (1) No Project Alternative, and (2) Cable Re-route/Maximum Burial Alternative.

1 **No Project**

2 The No Project alternative would not result in any impacts to the commercial or
3 recreational fishing activities within the site or region.

4 **Cable Re-route/Maximum Burial Alternative**

5 Although there will be additional time required to prepare and lay the longer cable
6 anticipated for the Maximum Burial Alternative, the construction-related impacts to
7 commercial and recreational fishing are not expected to be substantially increased over
8 those for the proposed Project. Assuming submission of the required Notice to
9 Mariners and compliance with fishing-related requirements in the existing Agreement
10 between the cable operators and fishing industry, coupled with the availability of similar
11 seafloor habitat in these water depths immediately north and south of the Project site,
12 this impact is considered to be less than significant.

13 Compared to the proposed Project and due to the decrease in precluded areas with the
14 increased amount of buried cable following installation, the operational impacts to
15 commercial fishing from this Alternative would be less than those for the proposed
16 Project. With the maximum burial alternative, virtually all of the cable will be buried 3 ft
17 (1.0 m) below the seafloor surface and rocky substrate would be avoided. This
18 alternative would minimize potential conflicts with commercial and recreational fishing
19 that arise from the risk of gear entanglement and damage to cables where the cable
20 cannot be buried.

21 **4.4.6 Cumulative Projects Impact Analysis**

22 None of the cumulative projects are expected to have marine construction activities that
23 will coincide with those of the proposed Project; therefore, no cumulative impacts on
24 commercial or recreational fishing activities are anticipated.

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